

REMARKS

Claims 1, 3-5, and 8 are pending in this application. By this Amendment, claims 1, 5, 8, and the specification are amended and claims 2, 6, 7, and 9 are canceled. Support for the amendments to the claims may be found, for example, in the claims as originally filed. No new matter is added.

In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

I. Objection to the Specification

The Office Action objects to the specification for the use of trademarks that are not capitalized and accompanied by their generic terminology. By this Amendment, the specification is amended to overcome the objection. Additionally, Applicants respectfully submit that "NOVATEC HD HY331" and "DFDJ7540" are capitalized in the specification and accompanied by their generic terminology, namely "High density polyethylene" and "Linear low density polyethylene," respectively. Accordingly, reconsideration and withdrawal of the objection are respectfully requested.

II. Rejections Under 35 U.S.C. §103

A. Claims 1-4, 6, and 7

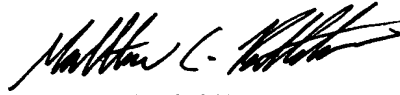
1. Zinc Sulfide

The Office Action rejects claims 1-4, 6, and 7 under 35 U.S.C. §103(a) as having been obvious over the combination of U.S. Patent Application Publication No. 2003/0207979 to Sato et al. ("Sato") and U.S. Patent Application Publication No. 2002/0013393 to Lewin ("Lewin"). By this Amendment, claims 2, 6, and 7 are canceled, rendering their rejection moot. As to the remaining claims, Applicants respectfully traverse the rejection.

By this Amendment, claims 1 requires that the crosslinked flame-retardant resin composition comprises "30-250 parts by weight of (C) a metallic hydrate; and 1-20 parts by

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:
Terminal Disclaimer

Date: September 11, 2009

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weight of (D) zinc sulfide" (emphasis added). The applied references would not have rendered obvious this combination of claim features for at least the following reasons.

Sato discloses a resin composition that may comprise zinc borate as a flame retardant adjuvant. See paragraph [0111]. A flame retardant adjuvant, by definition, is an agent that is used in combination with a flame retardant to improve the performance of the flame retardant. As a flame retardant, Sato discloses that its composition comprises a metallic hydroxide. See paragraphs [0024] and [107]. Thus, Sato would have led an ordinarily skilled artisan to include zinc borate as a flame retardant adjuvant in combination with a metallic hydroxide flame retardant in its crosslinked composition to improve the performance of the flame retardant.

The Office Action acknowledges that Sato neither discloses an amount for any zinc compound nor zinc sulfide. See page 4 ("Sato discloses neither the specific zinc compound nor its amount as required by said claims."). But the Office Action asserts that the combination of Sato and Lewin would have rendered obvious the claimed crosslinked flame-retardant resin composition comprising a metallic hydrate and zinc sulfide. See pages 4-5. However, an ordinarily skilled artisan would not have combined Sato and Lewin to produce the claimed resin composition for at least the following reasons.

Lewin discloses providing flame retarding additives of at least one of a polyphosphate, a sulfur containing compound, a catalyst, and a nitrogen containing compound to non-crosslinked polymeric compositions comprising fillers (e.g., glass fibers) to improve flame retardancy. See abstract and paragraph [0007]. As a sulfur containing compound for its polymeric compositions, Lewin discloses zinc sulfide. See paragraph [0011]. These additives are primarily responsible for providing flame retardancy and, thus, do not act as a flame retardant adjuvant for improving the performance of the flame retardant. Instead, they are flame retardants. Additionally, these additives are used as a substitute for previously used

flame retardants, such as halogen-based additives and red phosphorus. See Lewin at paragraph [0003].

If an ordinarily skilled artisan would have combined Sato and Lewin, the ordinarily skilled artisan would have at most simply substituted the metallic hydroxide flame retardant in the crosslinked composition disclosed by Sato with zinc sulfide--the flame retardant--as disclosed by Lewin in an attempt to improve the flame retardancy of Sato's composition because it is common and known in the art to replace one flame retardant with another flame retardant. There would have been no reason or rationale to have both flame retardants in a single composition.

However, one of ordinary skill in the art would not have combined Sato and Lewin because Sato is directed to a crosslinked flame-retardant composition and Lewin is directed to a non-crosslinked flame-retardant composition. An ordinarily skilled artisan would not have recognized the teachings relevant to non-crosslinked flame retardant compositions as being applicable to crosslinked flame retardant compositions because crosslinked and non-crosslinked compositions are different compositions with different properties.

Additionally, the claimed crosslinked flame-retardant resin composition comprising a metallic hydrate and zinc sulfide achieves unexpected results and solves a problem present in the prior art. Specifically, the claimed composition achieves excellent heat and wear resistance even when the composition is used in contact with other materials, such as a vinyl chloride resin composition. See specification at page 3, line 8 to page 4, line 26; page 7, line 11 to page 8, line 6; and page 17, line 16 to page 18, line 14. Simply put, the claimed composition has excellent compatibility with vinyl chloride resin compositions, especially in the context of when the claimed composition is used as a covering for non-halogenous insulated wires in contact with vinyl chloride insulated wires. *Id.*

For at least these reasons, Sato and Lewin would not have rendered obvious claim 1.

**2. Wire Crosslinked By Radiation,
Peroxide, or a Silane Cross-linking Agent**

Additionally, claim 4, which depends from claim 1, would have not been rendered obvious for at least the following reason. Claim 4 requires a "non-halogenous insulated wire . . . crosslinked by one of radiation, peroxide and a silane cross-linking agent."

In contrast, Sato only specifically discloses crosslinking its composition by electron beam irradiation. See paragraphs [0035] and [0113]. As discussed above, Lewin discloses compositions that are not crosslinked and, thus, fails to cure the deficiencies of Sato.

3. Conclusion

For at least the above reasons, the applied references would not have rendered obvious claims 1 and 4. Claim 3 depends from claim 1 and, thus, also would not have been rendered obvious by the applied references for at least the same reasons discussed above with respect to claim 1. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Claims 5, 8, and 9

The Office Action rejects claims 5, 8, and 9 under 35 U.S.C. §103(a) as having been obvious over the combination of Sato, Lewin, and U.S. Patent Application Publication No. 2003/0207106 to Nakamura et al. ("Nakamura"). By this Amendment, claim 9 is canceled, rendering its rejection moot. As to the remaining claims, Applicants respectfully traverse the rejection.

Claims 5 and 8 variously depend from claim 1 and, therefore, contain all the features of claim 1. Claim 8 also depends from intervening claim 4. The deficiencies of Sato and Lewin with respect to claims 1 and 4 are discussed above. Nakamura, which is applied by the Office Action for the additional features recited in claims 5 and 8, does not cure the deficiencies of Sato and Lewin with respect to claims 1 and 4.

Thus, the applied references would not have rendered obvious claims 5 and 8.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

III. Obviousness-Type Double Patenting Rejection

The Office Action provisionally rejects claims 1-9 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of copending Application No. 11/918,605. Without admitting to the propriety of the rejection, and in the interest of advancing prosecution, Applicants are simultaneously filing herewith a Terminal Disclaimer over the copending application, thus obviating the rejection. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

IV. Statement of Common Ownership

The Office Action asserts that claims 1-9 are not patentably distinct from claims 1-8 of copending Application No. 11/918,605. Applicants state as follows:

The present application and U.S. Application No. 11/918,605 were, at the time the later invention was made, owned by, or subject to an obligation of assignment to, Autonetworks Technologies, Ltd.; Sumitomo Wiring Systems, Ltd; and Sumitomo Electric Industries, Ltd.

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of this application are earnestly solicited.